

In the claims:

Pursuant to 37 C.F.R. 1.121, please **cancel** claims 139-164, and please **add** claims 165-187 set forth below.

New claims:

165. (New) A medical article comprising:
- a. an inorganic-based sol-gel matrix that is biocompatible; and,
 - b. a first reaction center encapsulated in said matrix,
- wherein upon placing said article comprising said biocompatible matrix in contact with tissue and/or fluids of a subject, said first reaction center converts a first prodrug into a first biologically active agent.
166. (New) The article of claim 165, wherein said first prodrug is endogenous to said subject and is more deleterious to said subject than said first biologically active agent.
167. (New) The article of claim 165, wherein said fluid is blood of said subject.
168. (New) The medical article of claim 165, wherein said article consists entirely of said biocompatible matrix.
169. (New) The medical article of claim 168, wherein said article is implantable.
170. (New) The medical article of claim 165, wherein said biocompatible matrix is attached to said article.
171. (New) The medical article of claim 170, wherein said biocompatible matrix is attached to said article as a thin film.
172. (New) The medical article of claim 170, wherein said biocompatible matrix is attached to said article in a capsule.
173. (New) The medical article of claim 165, wherein said biocompatible matrix is incorporated within said article.
174. (New) The medical article of claim 165, wherein said article is a tissue assist device, wherein said first reaction center provides a biological function characteristic of tissue of said subject.
175. (New) The medical article of claim 174, wherein said contact occurs extracorporeal to said subject.

176. (New) The medical article of claim 175, wherein said tissue of said subject is deficient in converting said first prodrug into said first biologically active agent.
177. (New) The article of claim 165, wherein said article is a stent.
178. (New) The article of claim 166, wherein said stent is coated with said biocompatible matrix
179. (New) A method for producing a medical article of claim 165, comprising:
 - a. encapsulating a first cell-free reaction center in a biocompatible matrix; and
 - b. shaping said matrix into a desired morphology;wherein said biocompatible matrix comprises an inorganic-based sol-gel matrix and wherein said first reaction center converts a first prodrug into a first biologically active agent.
180. (New) The method of claim 179, wherein said matrix is cast into a morphology selected from one of the following: cylindrical, rectangular, disk-shaped, patch-shaped, ovoid, stellate, or spherical.
181. (New) The method of claim 177, wherein said matrix is cast or sprayed as a thin film onto said medical article.
182. (New) The method of claim 181, wherein said article is a stent.
183. (New) The method of claim 177, wherein said biocompatible matrix comprises a silica-based sol-gel matrix.
184. (New) The method of claim 177, wherein said biocompatible matrix is prepared from at least one type of oxysilane.
185. (New) The method of claim 184, wherein said biocompatible matrix is prepared from more than one type of oxysilane.
186. (New) The method of claim 184, wherein said biocompatible matrix is prepared from at least one type of inorganic oxide and at least one type of oxysilane.
187. (New) A method for producing a medical article of claim 165, comprising:
 - a. encapsulating a first cell-free reaction center in a biocompatible matrix;
 - b. crushing said biocompatible matrix; and
 - c. encapsulating said crushed biocompatible matrix;wherein said biocompatible matrix comprises an inorganic-based sol-gel matrix and wherein said first reaction center converts a first prodrug into a first biologically active agent.